

## Amino-Terminal Modified Human Parathyroid Hormone (PTH) Analogs

### *Abstract*

PTH derivatives having one or more amino acid substitutions that confer PTH-1/PTH-2 receptor agonist properties comprising a biologically active peptide at least 90 % identical to a peptide consisting essentially of the formula:

(a)  $X_{01}$  ValSerGluIleGlnLeuMetHisAsnLeuGlyLysHisLeuAsnSerMetGluArgValGluTrpLeuArgLysLysLeuGlnAspValHisAsnPhe (SEQ ID NO:1);

(b) fragments thereof containing amino acids 1-29, 1-30, 1-31, 1-32, or 1-33;

(c) pharmaceutically acceptable salts thereof; or

(d) N- or C- derivatives thereof;

wherein:

$X_{01}$  is desamino Ser, desamino Ala or desamino Gly, provided that said peptide is not desamino Ser<sup>1</sup> hPTH(1-31)NH<sub>2</sub> or desamino Ser<sup>1</sup> hPTH(1-34)NH<sub>2</sub>.